

IN THE CLAIMS

1. (Previously presented) A method of constructing one or more message parsing rules in accordance with a user and a machine, comprising the steps of:

obtaining message data representing past messages, wherein the past messages contain management information for a network, an application, and a system being analyzed;

establishing an appropriate rule template for a message structure by scanning the message data, building a message skeleton, comparing previously generated rule templates to the message skeleton, providing potential rule template matches to the user for validation and choice of a selected rule template, determining whether the selected rule template contains enough information to identify individual messages, building a rule template through an iterative process between the user and the machine based on user selection of at least a portion of the message and designating the built rule template as a template to be used in the construction of one or more message parsing rules, when the selected rule template does not contain enough information, and designating the selected rule template as a template to be used in the construction of one or more message parsing rules; and

generating one or more message parsing rules by a process based on the obtained message data and the template to be used in the construction of one or more message parsing rules, and defining positive and negative examples in an unparsable message by the user, learning and creating possible rules covering positive examples at the machine, and adding a newly created rule to the one or more message parsing rules, wherein the one or more parsing rules are storable for access by a rule-based parsing system.

2. (Canceled)

3. (Currently amended) The method of claim 2, wherein the message data is obtained by at least one of: (i) reading past message data from one or more messages logs; and (ii) one of the network, the application and the system pointing to message data in existing data storage.

4. (Original) The method of claim 1, wherein the rule-based parsing system comprises a message adaptation system.

5. (Original) The method of claim 1, further comprising the step of establishing a message structure prior to the generating step.

6. (Canceled)

7. (Canceled)

8. (Previously presented) The method of claim 1, wherein the iterative process further comprises demonstrative classification of the selected portion as one of a positive example and a negative example.

9. (Previously presented) The method of claim 1, wherein the message skeleton comprises information relating to one or more of a message start, a message end, and a separator between fields.

10. (Original) The method of claim 1, wherein classification comprises user demonstration of at least one of a positive example and a negative example.

11. (Original) The method of claim 10, wherein classification further comprises the steps of:

the machine parsing message data sequentially until an unparseable message is encountered;

the machine displaying the unparseable message to the user;

the user selecting at least a portion of the unparseable message and marking the selected portion as one of a positive example and a negative example; and

the machine learning based on the example and creating one or more candidate rules.

12. (Original) The method of claim 11, further comprising the step of the machine revising the one or more candidate rules based on feedback from the user.

13. (Original) The method of claim 1, wherein each of the one or more generated parsing rules comprises a regular expression of a portion of a message.

14. (Original) The method of claim 1, wherein each of the one or more generated parsing rules comprises a transformation rule of a portion of a message.

15. (Original) The method of claim 14, wherein the transformation rule comprises a string constant.

16. (Original) The method of claim 14, wherein the transformation rule comprises a permutation of one or more input tokens.

17. (Previously presented) Apparatus for constructing one or more message parsing rules, comprising:

a memory; and

at least one machine-based processor coupled to the memory and operative to: (i) obtain message data representing past messages, wherein the past messages contain management information for a network, an application, and a system being analyzed; and (ii) establish an appropriate rule template for a message structure by scanning the message data, building a message skeleton, comparing previously generated rule templates to the message skeleton, providing potential rule template matches to the user for validation and choice of a selected rule template, determining whether the selected rule template contains enough information to identify individual messages, building a rule template through an iterative process between the user and the machine based on user selection of at least a portion of the message and designating the built rule template as a template to be used in the construction of one or more message parsing rules, when the selected rule template does not contain enough information, and designating the selected rule template as a template to be used in the construction of one or more message

parsing rules; and (iii) generate one or more message parsing rules by a process based on the obtained message data and the template to be used in the construction of one or more message parsing rules, and defining positive and negative examples in an unparsable message by the user, learning and creating possible rules covering positive examples at the machine, and adding a newly created rule to the one or more message parsing rules, wherein the one or more parsing rules are storable for access by a rule-based parsing system.

18. (Original) The apparatus of claim 17, wherein the rule-based parsing system comprises a message adaptation system.

19. (Canceled)

20. (Canceled)

21. (Original) The apparatus of claim 17, wherein classification comprises user demonstration of at least one of a positive example and a negative example.

22. (Previously presented) The apparatus of claim 21, wherein classification further comprises operations of:

the at least one machine-based processor parsing message data sequentially until an unparsable message is encountered;

the at least one machine-based processor displaying the unparsable message to a user;

the user selecting at least a portion of the unparsable message and marking the selected portion as one of a positive example and a negative example; and

the at least one machine-based processor learning based on the example and creating one or more candidate rules.

23. (Previously presented) An article of manufacture for constructing one or more message parsing rules in accordance with a user and a machine, comprising a

machine readable storage medium containing one or more programs which when executed implement the steps of:

obtaining message data representing past messages, wherein the past messages contain management information for a network, an application, and a system being analyzed;

establishing an appropriate rule template for a message structure by scanning the message data, building a message skeleton, comparing previously generated rule templates to the message skeleton, providing potential rule template matches to the user for validation and choice of a selected rule template, determining whether the selected rule template contains enough information to identify individual messages, building a rule template through an iterative process between the user and the machine based on user selection of at least a portion of the message and designating the built rule template as a template to be used in the construction of one or more message parsing rules, when the selected rule template does not contain enough information, and designating the selected rule template as a template to be used in the construction of one or more message parsing rules; and

generating one or more message parsing rules by a process based on the obtained message data and the template to be used in the construction of one or more message parsing rules, and defining positive and negative examples in an unparsable message by the user, learning and creating possible rules covering positive examples at the machine, and adding a newly created rule to the one or more message parsing rules, wherein the one or more parsing rules are storable for access by a rule-based parsing system.